

## REMARKS

The claims are 1 to 17. Claims 1 to 17 have been cancelled without prejudice in order to advance prosecution. Newly presented claims 18 to 35 are intended to carry forward the cancelled subject matter and more clearly define what the inventors view as the invention.

Cancelled Claims 1 to 17 stand rejected. Claims 5, 10 and 13 stand objected to because of the presence of an abbreviation. Claims 1, 6 and 104 stand objected to because of a misspelling. Claim 10 stands rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,559,860 to Hamilton and Schlussman. Claims 1, 5 to 9, 12, 13, and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,559,860 to Hamilton and Schlussman in view of U.S. Patent 6,207,936 to de Waard, Donald, Lu, and de Keyser. Claims 2 to 4, 11, and 15 to 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U. S. Patent 6,559, 860 to Hamilton and Schlussman in view of U.S. Patent 6,207,936 to de Waard, Donald, Lu, and de Keyser, in further view of U.S. Patent 4,519,860 to Bieg, Jokiel, Ens, and Watson. In view of the cancellation of these Claims, these rejections are submitted to be moot.

Newly written Claims 18 to 35 are intended to carry forward the subject matter of the cancelled claims while more clearly defining and more precisely claiming the subject matter which the inventors believe to be the invention. Support for these claims is found

*inter alia* in the specification, and in the parent application which is incorporated by reference.

It is submitted that the invention defined in these newly submitted claims is broader in concept than anything shown in the cited art. The present invention is a model based controller for a full industrial process, not simply a controller for an individual step within such a process. Thus, the references which show control of a mechanical operation, are merely an illustration of one step within the industrial process enabled by the present invention. In that the present invention provides for the inclusion of a mechanical operation in the overall process under its aegis, the references have meaning. But they fall short of disclosing control of a full industrial process in which a mechanical operation may be only one of several process steps. The model based controller of the present invention could direct the action of a mechanical operation through a controller such as that taught by the references. Alternatively, the model based controller may direct the controller through every individual task within the mechanical operation. But the purpose of the present invention is to direct the overall process, not simply one process step. Nothing in the art shows or suggests such overall process control. As such, it is submitted that the Claims, as presently written, are patentable over the art and should be examined, allowed, and passed to issue.

Finally, the Examiner has noted that the Declarations filed with the Application were not executed as prescribed by 37 C.F.R. 1.66 or 1.68. It is submitted, in response thereto, that the present Application was filed under the then-current guidelines which

permitted the form of signature used. In any event, a copy of the declarations as executed by the inventors is appended hereto.

WHEREFORE, in consideration of the above amendments and arguments,  
  
reexamination and allowance are respectfully requested.

Respectfully,

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